# Introduction to Workforce Planning for IM/IT Personnel

Department of the Navy
Chief Information Officer

September, 2001

# Prepared by IATAC

**Contract Number: SPO700-98-D-4002, DO 75** 

Information Operations (IO) Analysis through C4ISR and Information Superiority

**IATAC TAT 00-24** 

3190 Fairview Park Drive Falls Church, VA 22042

Approved for public release; distribution is unlimited

# REPORT DOCUMENTATION PAGE OMB No. 074-0188 Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503 1. AGENCY USE ONLY (Leave 2. REPORT DATE 3. REPORT TYPE AND DATES COVERED blank) 9/1/2002 Report 9/1/2002 4. TITLE AND SUBTITLE 5. FUNDING NUMBERS Introduction to Workforce Planning for IM/IT Personnel 6. AUTHOR(S) John Draper 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **8. PERFORMING ORGANIZATION** REPORT NUMBER Booz Allen & Hamilton 8283 Greensboro Drive McLean, VA 22102 10. SPONSORING / MONITORING 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) AGENCY REPORT NUMBER 8725 John J. Kingman Road, Suite 944 Fort Belvoir, VA 22060 11. SUPPLEMENTARY NOTES 12a. DISTRIBUTION / AVAILABILITY STATEMENT 12b. DISTRIBUTION CODE Distribution: Approved for public release Α 13. ABSTRACT (Maximum 200 Words) The strategic approach to workforce planning requires a systematic assessment of the content and composition of the workforce as it releates to the organizations's mission. The assessment determines what actions need to be taken to meet the organization's goals and objectives. 15. NUMBER OF PAGES 14. SUBJECT TERMS IATAC Collection, Workforce planning, strategic planning, human

NSN 7540-01-280-5500

OF REPORT

capital management

17. SECURITY CLASSIFICATION

UNCLASSIFIED

18. SECURITY CLASSIFICATION

UNCLASSIFIED

OF THIS PAGE

Standard Form 298 (Rev. 2-89) Prescribed by ANSI Std. Z39-18 298-102

16. PRICE CODE

19. SECURITY CLASSIFICATION

UNCLASSIFIED

OF ABSTRACT

17

20. LIMITATION OF ABSTRACT

UNLIMITED

Form Approved

#### WORKFORCE PLANNING — BUILDING HIGH PERFORMANCE ORGANIZATIONS

Traditionally, strategic human capital planning has been a weak link in federal management. Because federal civilian employees account for a large and very visible share of operating costs, workforce decisions are frequently filtered through a budget lens and personnel have too often been seen as costs to be cut rather than assets requiring investment. However, as organizations have attempted to respond to a fast-paced and increasingly demanding work environment, traditional approaches are being supplanted by a strategic approach to managing people.

Human Capital — The Key to High Performance Organizations

There is a common awakening across the federal government to the fact that people are its greatest asset, recognizing their worth and integrating their management into organizational strategy. While people have always been important to producing goods and services, the changing nature of work — the shift to greater use of knowledge workers— increases the value of human capital.

Simply stated, human capital is the sum of the knowledge, experience, expertise, capability, capacity and creativity possessed by the individuals of an organization. Human capital merges with social capital (the relationships and networks in an organization) and corporate capital (the intellectual property and processes of an organization) to create intellectual capital. An organization's intellectual capital enables a knowledge enterprise, deriving power through its people — what they know, how they bring their knowledge together, and how they translate that knowledge into action. Knowledge management — the ability to harness the intellectual capital of an organization — fuels organizational success.

The government needs to leverage human capital through knowledge management, resulting in greater emphasis on developing and retaining its human capital. In the past, the DON, like other government agencies, responded to shortcomings by creating frameworks for more business-like and results-oriented management; the primary focus was on financial issues, increased information technology and performance-based management.

Competition for technical talent combined and projected government employee retirements have highlighted the need for human capital management. High performance organizations choose strategies to integrate their organizational components, activities, processes and resources to support their mission. Likewise, high performance organizations align their human capital — from the organizational level to the individual — with their strategic planning. This requires *strategic workforce planning* to identify current and future human capital needs.

Strategic Workforce Planning — The Key to Managing Human Capital

Strategic workforce planning is vital to human capital management. Figure 1 relates the human factor to traditional mission strategic planning.



Figure 1. The People Factor: Relating Human Capital to Organizational Mission and Strategy through Workforce Planning

Strategic workforce planning is the systematic assessment of future workforce needs and the determination of the actions and strategies required to meet those needs. Put more simply, it is *getting the right people with the right skills into the right jobs at the right time.* 

Workforce planning is not a new topic — most organizations do some form of it. However, in most cases, the approach is one dimensional, responding only to the question, "How many people do we need — or can we afford — to get the work done?" This method is usually driven by available budget or the need to fill vacancies caused by attrition. The process is transactional and short term.

The strategic approach to workforce planning is far more comprehensive. It takes the long view of the needs of the organization, focusing on necessary competencies and the changes in functions as a result of changing missions, new processes and environmental factors. In strategic workforce planning, the goal is to identify future requirements and develop strategies to ensure the workforce is prepared to meet them.

The strategic approach to workforce planning requires a systematic assessment of the content and composition of the workforce as it relates to the organization's mission. The assessment determines what actions need to be taken to meet the organization's goals and objectives. The required actions may depend on external factors, such as demographics of the general workforce, technical needs or industry trends, or internal factors, such as the turnover, skill sets, and training needs of the current workforce. In either case, these factors will point to whether the competencies can be met by recruiting, training or strategic sourcing.

Specifically, workforce planning allows an organization to:

- Forecast future staffing requirements and competencies based on attrition models, resource trends, diversity goals, and senior leadership work priorities;
- Determine the gap between the current workforce and future requirements, considering mission, resources, technology enhancement, diversity, and other factors affecting the number of employees and competencies required;

• Identify changes in workforce functions and workload, as well as changes in required competencies so strategies to mitigate gaps in competencies, recruiting, and workforce transition can be developed. Figure 2 presents an overview of all the elements of a strategic workforce planning process.

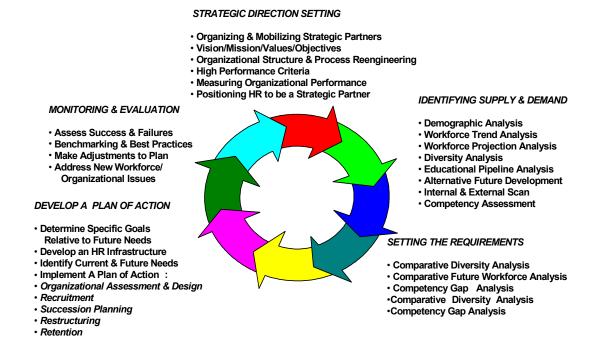


Figure 2. Office of Personnel Management Strategic Workforce Planning Model

This process is simple in outline but depends on rigorous and comprehensive analysis of the organization's work, workforce, and strategic direction.

In the analysis phase of workforce planning, the key steps are: supply analysis, demand analysis, gap analysis, and solution analysis.

- Supply Analysis focuses on identifying organizational competencies, analyzing staff
  demographics, and identifying employment trends. Competency analysis provides
  baseline data on the existing organization and personnel. Trend analysis provides both
  descriptive and forecasting models describing how turnover will affect the workforce in
  the absence of management action. Trend analysis is essential to the solution analysis
  phase.
- Demand Analysis deals with measures of future activities and workloads, and describing the competency set needed by the workforce of the future. Demand analysis must take into account not only workforce changes driven by changing work but also workforce changes driven by changing workload and changing work processes.
- Gap analysis is the process of comparing information from the supply analysis and demand analysis to identify the differences the gaps— between the current organizational competencies and the competency set needed in the future workforce. The gap analysis identifies situations in which the number of personnel or competencies in the current workforce will not meet future needs (demand exceeds supply) and situations in which current workforce personnel or competencies exceed the needs of the future (supply exceeds demand).

• Solution analysis is the process of developing strategies to mitigate the gaps in both numbers and competencies. It is at this point that the organization can develop a strategic plan to address the gaps.

Evaluation is an added step that involves a periodic and systematic review of the workforce plan, reviewing mission and objectives to assure they remain valid and making adjustments as required by changes in mission, objectives, and workforce competencies.

A high performance organization demands a dynamic, results-oriented workforce — with the talents, multi-disciplinary knowledge, and up-to-date skills — to meet its mission. Because mission demands, technologies, and other environmental influences change rapidly, a performance-based organization must continually monitor its talent. It must be alert to the changing characteristics of the workforce, identify strategies to fill its talent needs, and follow up with appropriate investments to develop and retain the right human capital. The workforce must be continuously developed through education, training, and opportunities for continued growth. The right people must be matched to the right jobs and, given finite resources, be prepared to employ matrix management, maintaining flexibility to redeploy its human capital and realigning structures and processes to maximize economy, efficiency, and effectiveness.

Strategic workforce planning provides an organization with a roadmap to address workload and workforce related issues. A systematic approach to workforce planning facilitates more efficient and accurate alignment of the organization to meet mission, goals, commitments and priorities. Workforce planning is a strategic tool that allows organizations to anticipate and plan for change rather than being surprised or unprepared to manage an evolving environment and workforce.

There is probably no single community undergoing as much dramatic change as the IM/IT community. It is the DON CIO's responsibility to guide and shape the IM/IT workforce.

#### DON CIO IM/IT Workforce Gap Analyses

In today's DON, military success across the spectrum of Navy and Marine Corps missions relies on exploiting information to maximize the effectiveness of every individual and every organization. The dramatic and accelerating changes in technology bring new capabilities to every aspect of Naval operations and support functions. The DON needs a corps of knowledge workers—educated, trained, and motivated military, civilians and contractors—to develop and maintain its technological edge.

The Clinger-Cohen Act of 1996 requires selected Federal CIOs to assess IM/IT personnel competencies, knowledge and skill requirements for their agencies and to develop strategies and specific plans for hiring, training, and professional development needs of the information technology (IT) workforce.

The DON CIO directly addressed this requirement in its strategic goals, calling for the Navy and Marine Corps "to build IM/IT competencies to shape the workforce of the future." The CIO took specific action to achieve this goal by establishing a cross-functional, cross-organizational team — the IM/IT Workforce Integrated Process Team (IPT) — chartered to define a workforce strategy and conduct IM/IT workforce planning analyses to facilitate more efficient and accurate alignment of the IM/IT workforce to meet the DON's organizational goals, commitments and priorities.

Considering the enormous changes taking place in IM/IT, and the external pressures and demands that occur in this dynamic environment, the DON CIO considered it essential to take a strategic view of the Department's IM/IT human capital. Two working groups — the Civilian Working Group and the Military Working Group — concurrently developed specific workforce analyses to examine the military and civilian elements of the workforce. The reports from these two working groups present the results of the DON CIO's first attempts to develop an IM/IT workforce planning process that can be matured and institutionalized to support the IM/IT community and shape it to meet the future. They also present a call to action, as the DON CIO lays the groundwork for strategic partnerships across the Department to develop the policies and procedures that will ensure the DON can recruit, develop and manage its IM/IT workforce.

# **Frequently Asked Questions**

## DON IM/IT Workforce Strategic Plan

# 1. Why do we need a Workforce Strategic Plan for the IM/IT community?

This plan is the roadmap for a systematic approach to IM/IT workforce planning in the DON. It is a direct response to the Clinger-Cohen Act of 1996, which requires selected Federal Government CIOs to "develop strategies and specific plans for hiring, training, and professional development" of IM/IT personnel.

This plan identifies the goals and objectives that will allow the DON to identify, develop, and maintain the IM/IT workforce of the future. Ultimately, we want to ensure that we have "the right people, with the right skills, in the right jobs, at the right times."

#### 2. What is different about the future IM/IT workforce?

You have probably heard about the concerns the Federal Government has overall in recruiting and retaining personnel. One of the communities that has been under specific review is the IM/IT community, because there is concern that there is a shortage of skilled IM/IT workers in general.

The escalation of the global economy through electronic media has significantly expanded reliance on information and technology. Within the military, IT has become a critical asset in every aspect of business operations and warfare — and we are faced with a need for an increasingly technical workforce with our greatest demand in the area where there is the greatest shortage. The ability to exploit the power of information focuses unprecedented interest on the IM/IT workforce.

At the same time, changes in demographics, in the education and skills required of workers, and in basic employment structures and arrangements are all starting to unfold. As we integrate new generations of workers, we are looking at new workforce challenges.

As a result, the DON needs to develop the policies and practices to improve our business processes, as well as sustain our military superiority.

# 3. So is this a workforce plan?

No. While the DON is committed to comprehensive workforce planning, this document presents the *goals* for our IM/IT workforce. These goals set forth the strategic vision for the workforce so the DON can develop the polices and procedures to plan for, recruit, retain, advance, and nurture the IM/IT workforce.

# 4. To whom does this strategic plan apply?

This strategic plan is focused primarily on the DON's development of career IM/IT professionals. The "core" IM/IT workforce – those military and civilians whose responsibility is to provide IM/IT capabilities needed across the DON. They require specialized and concentrated competencies, reinforced with foundational and continual training and education. However, this document also addresses the value of all Department

of the Navy personnel in acquiring the key competencies essential for success in the Information Age.

#### 5. How do I know I'm in the "core" IM/IT workforce?

Appendix A of this document lists the ratings and occupational series for core IM/IT personnel. For military members, expertise is identified by: Navy officer designators and subspecialty codes, Navy Enlisted Classification codes (NECs), and Marine Corps officer and enlisted Military Occupational Specialties (MOSs). Civilian Occupational Series are included for those in both core and expert user categories. The section "Defining the IM/IT Workforce" expands on the discussion in the appendix and provides some examples of how determinations between "core" and "expert" users were made.

Of course, as the work and the workforce change (such as changes in ratings and MOSs), these lists will also have to be updated.

# 6. What makes a job an IM/IT job?

The functions include Information Management, Knowledge Management, IM/IT Strategic Planning, IM/IT Investment Planning, IM/IT Workforce Planning, IM/IT Architecture, IM/IT Acquisition and IT Infrastructure Management, E-business, and Information Operations. For further information about the functions and their definitions, refer to the DON Guidance on Inherently Governmental Functions of 11 NOV 00.

# 7. How will the DON CIO implement this plan?

The DON CIO cannot implement this plan alone. As you can see from the way this document was issued — with signatures from both DON IM/IT leadership *and* DON manpower and personnel leadership — success requires support from both the Human Resources and IM/IT communities. Moving forward to implementation, DON CIO is building strategic partnerships across the DON to implement strategies that will support the workforce goals.

#### **Guidance on Inherently Governmental IM/IT Functions**

## 1. What is the purpose of this document?

This document lists a series of IM/IT functions categorized as "inherently governmental" and "non-inherently governmental." The purpose is to provide DON personnel with an understanding of IM/IT functions and the type of work performed by government and contractor personnel.

# 2. What does "inherently governmental" mean?

The definition in the Office of Federal Procurement Policy letter 92-1 is that an inherently governmental function is "so intimately related to the public interest as to mandate performance by Government employees"... requiring "either the exercise of discretion in applying Government authority, or ... value judgments in making decisions for the Government."

#### 3. So, do all non-inherently governmental functions have to be contracted out?

No. A function listed as non-inherently governmental can be performed by government personnel. However, a function that is non-inherently governmental function is defined as "military or civilian essential" — so the work may be subject to competition or direct conversion. And it is work that contractors can do for the government.

In the case of IM/IT and KM in the DON, these functions are so closely related to the DON mission that there is a need for a cadre of government personnel to ensure continued operations in all environments — peace, operations other than war, national crisis and war.

#### 4. How do I use this document?

This document gives organizations a way to categorize work. As the DON moves forward with changes in human resources planning, manpower processes, and enterprise systems, we know we will see changes in our day-to-day business operations. This guidance supports the DON's ability to make positive change in IM/IT workforce management by clarifying our understanding of inherently governmental work. As we move forward with workforce planning and other workforce initiatives, the ability to "label" work will allow us to make strategic and tactical decisions about our workforce requirements. This is particularly important as we implement the Navy Marine Corps Intranet (NMCI).

# 5. I understand the definitions of the functions, but what are Commercial Activity (CA) function codes and why do I need them?

Commercial Activities (CA) function codes are used to identify the most prevalent single function associated with a military billet or civilian position. These codes are used by all services to report to DoD in an annual data call that helps characterize work being done by functional area. Clearly, this is a way to "take a census" so the government can answer questions about the work it does, how big a workforce is associated with particular functions, etc.

In the Inherently Governmental Guidance, we have mapped specific detailed IM/IT functions with the CA function codes used during the FY2000 CA Inventory data call (see Attachments (A) and (B)). This is provided so that as commands update their inventories, we will achieve more consistency in the way the IM/IT positions are coded — giving DON CIO and other IM/IT leadership organizations better insights into the community so we can improve our planning, target our training and education, and make sound projections for the future.

#### **Continuous Learning Guidance**

# 1. What is "Continuous Learning (CL)?"

Continuous learning is the process by which individuals update their knowledge, skills, and abilities and behaviors — competencies — to keep pace with changes in the workplace.

#### 2. What is the purpose of continuous learning?

The goal of continuous learning is to ensure that IM/IT professionals will:

- Stay current in technical and functional competencies;
- Become familiar with multiple IM/IT workforce career fields;
- Keep abreast of Departmental policies and programs;
- Stay current with advanced management and leadership principals and practices;
- Pursue advanced technical, business and managerial training; and
- Prepare to assume critical technical, managerial and leadership positions.

#### 3. Does anyone in an IM/IT position have to pursue continuous learning?

Continuous learning is focused on "Core" IM/IT professionals. Core personnel are defined as those individuals who are focused on IM/IT careers. Many of the positions are listed in Appendix A of the DON IM/IT Workforce Strategic Plan.

#### 4. What types of training are included in continuous learning?

Functional and technical training, leadership training and academic courses are all elements of continuous learning.

## 5. Do I have to go to training? My job won't allow me to be gone that much!

In addition to formal training and educational courses, many other activities are included in the continuous learning standards. For example, experiential and development assignments, on-the-job experiential assignments, rotational and developmental assignments, and professional activities, such as teaching, writing and publishing, and consulting with other DoD components are all included in the CL standards. Section IV of the Continuous Learning Guidance provides detailed information on the types of efforts that meet the criteria.

#### 6. How much continuous learning is required annually?

The DON expects that all civilian and military IM/IT core workforce professionals will participate in 80 hours of CL activities to augment the minimum competency requirements for their career field or particular assignment.

#### 7. Who will know — or care — if I do this?

The ability to demonstrate currentness in your technical or functional field is valuable to the individual for purposes of promotion and assignment. The efforts undertaken can be documented in Individual Development Plans, assessments, evaluations, etc. and tracked by a supervisor. These types of documentation demonstrate personal growth and achievement — and can result in individual awards.

# 8. Is there an operating budget that funds continuous learning?

The SECNAVINST 12410.22A recommends that activities allocate one percent of the annual activity operating budget to support non-salary training costs. However, each command must determine how much training they can allow.

#### Workforce Planning: The Civilian and Military Gap Analyses

#### 1. What is workforce planning?

Workforce planning is a systematic approach to facilitate efficient and accurate alignment of a workforce to meet an organization's goals, commitments and priorities. It focuses on the competencies — knowledge, skills, abilities and behaviors — necessary to accommodate changing missions, new processes and environmental factors. Basically, workforce planning provides a basis for decision-making to ensure the DON has the right IM/IT people, with the right skills in the right jobs at the right time.

Specifically, workforce planning supports:

- Efficient and accurate alignment of the IM/IT workforce with Naval Service goals, objectives, and priorities.
- A strategic basis for managers to make human resource decisions.
- A foundation to assist the organization with focused cross-organizational placement, training, retaining, and recruiting.
- An opportunity to anticipate change rather than be surprised by events.
- Strategic methods for addressing present and anticipated workforce issues.

# 2. Why is the DON CIO doing workforce planning?

As the DON moves into the 21<sup>st</sup> century, it must confront the challenges of a high technology workplace. As IM/IT capabilities expand at ever increasing rates, they affect not only warfighting concepts and capabilities, but also the kind and number of people in the workforce. The extraordinary emphasis on the power of information and knowledge has focused enormous interest in the IM/IT workforce.

Further, the sweep of digital technologies and the accompanying transformation to a knowledge-based economy have created vast changes in society. The demand for workers able to create, apply and use information is expanding rapidly. As a result, there is intense competition for IM/IT workers in both the private and public sectors.

The impact of these environmental factors is reflected in the Clinger-Cohen Act of 1996. This requires selected CIOs to assess IM/IT personnel knowledge and skill requirements for their agencies and to develop strategies and specific plans for hiring, training, and professional development of the IM/IT community.

#### 3. What approach did the DON CIO take?

DON CIO took specific action to examine its IM/IT posture by establishing a cross-functional, cross-organizational team — the IM/IT Workforce Integrated Process Team (IPT). Since there was no institutionalized process for conducting a review of a specific workforce, the IPT considered several approaches and determined that a workforce planning analysis was the best approach. It also decided to examine the military and civilian communities separately since it appeared the management differences between the military and civilian communities outnumbered the similarities.

The IPT chartered two working groups to conduct the analyses, which took slightly different forms. However, the *overall* approach for each was:

- Determine the current IM/IT workload and functions, i.e., determine the *demand* for IM/IT work;
- Evaluate the workload and associated functional breakdown of its current and future workforce, i.e., identify *supply*;
- Perform an analysis that addresses the gap between the work demand and the available workforce, i.e., a gap analysis between future supply and future demand;
- Examine the competencies of the current workforce and compare them to those projected as necessary in the future to determine how to shape the workforce to be able to accomplish future work; and,
- Identify strategies to mitigate the gap between the supply and demand and ensure that the DON has the right workforce in terms of numbers and competencies in place.

#### 4. Who was considered in the study?

Both working groups began by defining and identifying the core IM/IT personnel in the civilian and military workforce. The civilian study lists the occupational series of core personnel; the military study lists the designators, subspecialties, Navy Enlisted Classifications (NECs) and Military Occupational Specialties (MOS) of core personnel.

#### 5. Who participated in the studies?

Both working groups were made up of subject matter experts in IM/IT and Human Resources/Manpower.

In the Civilian Working Group, there was representation from the DASN (CP/EEO), key resource sponsors (including CNO N1 and N6), the Marine Corps headquarters (HQMC C4 and M&RA), and almost every one of the Navy's major claimants. In addition, for the workshops in which the model was populated, additional commands and subject matter experts were invited to participate. For example, when the Marine Corps workshop was held, subject matter experts from most of the Marine's fleet commands and bases participated.

The Military Working Group solicited membership from a wide range of commands, including the CNO staff (N1, N2, N6, N7, N095), as well as support from the major claimants, including the fleet commanders.

The participants are listed in the two reports.

#### 6. Where did DON CIO get the data for the reports?

Both groups used a wide range of data sources for inputs.

The Civilian Working Group relied heavily on the Defense Civilian Personnel Data System (DCPDS), the Commercial Activity (CA) Inventory, and the DON IM/IT Guidance for Inherently Governmental Functions.

The Military Working Group had a broad range of sources, including personnel databases managed by the military manpower organizations, as well as the Total Force Manpower Management System (TFMMS), Integrated Battleforce Training (IBFT), Navy Training Management and Planning System (NTMPS) and the Marine Corps Table of Manpower Requirements (T/MR). In addition, the Military Working Group worked with many other organizations and working groups/study groups across the DON, such as the Navy's Training and Education Integrated Warfare Assessment Review (IWAR) group, the Navy Fleet Support Officer Review, the Marine Corps Restricted Officer Review, the Communication and Information Systems Network Working Group.

# 7. What are the significant differences between the two studies?

While the two studies were similar in nature and goals, the actual methodologies and data available were different. Both groups relied extensively on subject matter experts from across the Navy and Marine Corps to develop their assumptions, projections and mitigation strategies.

The Civilian Working Group selected a workforce model that used a quantitative tool to project IM/IT workload and workforce. Based on a series of algorithms in a set of linked spreadsheets, the model was aligned with a set of business rules on which to base the calculations. Then data and subject matter experts' estimates were entered into the model to develop projections of future workload and workforce requirements. The model's products are a set of quantitative data that highlight the differences between the current workload and workforce and the FY2005 demand for IM/IT work and personnel.

The Military Working Group used both quantitative and qualitative analyses to determine the workforce gap. The group initially relied on information from the TFMMs and TMR to determine the workload parameters, then relied on several other workforce studies to compile workforce information regarding recruiting, training, and career management. The focus of the Military Working Group was far more qualitative because the key finding was that there were many process and organizational, rather than numbers, issues associated with the military workforce.

#### 8. What if any problems were encountered with these approaches?

Because this was groundbreaking work, there was a large learning curve involved in these efforts.

Among the issues were: defining the core IM/IT workforce, locating appropriate — and accurate data — and coordinating with other efforts that were examining the IM/IT workforce at the same time.

In terms of defining the workforce, it was necessary to decide what occupational series, designators, subspecialties, NEC's and MOSs were really core.

Once it was clear which personnel the working groups were interested in, it was necessary to determine what kind of data was needed to conduct workforce planning — and whether or not that data existed in useable formats. Data was one of the most serious concerns because inaccurate, or suspect data, would mar the credibility of the effort. One of the findings from both studies was the difficulty in finding consistent, rationalized data across the enterprise. That is, there are multiple sources of data, but the information in each appears to be slightly different, requiring rationalization. For example, the MWG understood the limitations of manpower data systems— eventually developing a front-end Navy sea/shore rotation model to look at the workload and workforce. The Civilian Working Group found (1) that there is no integrated, authoritative source for all manpower and civilian personnel data and (2) that specific IM/IT professionals cannot be easily identified in existing databases because they are not "tagged" with an identifier for their professional community.

Finally, because people are such a critical element of the Department, there are numerous studies and working groups reviewing various aspects of multiple issues. These other working groups were invaluable sources of information — but just keeping track of them and sharing findings took a lot of time and coordination. However, these efforts have had a significant pay-off by allowing people to relate their efforts and work together.

#### 9. Are these reports final?

No, both these reports are still in **draft** as of 1 August 2001. The DON CIO is currently staffing the reports through the appropriate Secretariat, Navy and Marine offices to get concurrence.

#### 10. What were the results of the Civilian Study?

The Civilian Working Group estimated workload and workforce for each service, Navy and Marine Corps, at the service level and for 10 functional areas. The ten functional areas are: Information Management, Knowledge Management, IM/IT Strategic Planning, IM/IT Investment Management, IM/IT Workforce Management, IM/IT Architecture, IT Acquisition, IT Operations and Maintenance, Defensive Information Operations, and e-Business/Commerce.

For the Navy, it determined that at the enterprise level, the overall workload will not change significantly, but with attrition of the workforce, only 43% of the Navy workload will be met. The profiles of the individual functional areas vary significantly.

For the Marine Corps, the working group determined that at the enterprise level, the overall workload increases significantly by FY2005, so only 34% of the demand will be met. Again, individual functions have significantly different profiles.

Overall, the projections show that each service will have to make changes in the workforce profile, ensuring that individuals receive training in new functional areas to meet shifting demand and that both services need to find ways to recruit new personnel while maintaining, through appropriate programs, those individuals with needed capability and capacity for new IM/IT work.

# 11. What were the results of the Military Study?

The Military Working Group found that: (1) the current inventory of military personnel (supply) does not meet current workload (demand); (2) the work (demand) remains approximately the same across the study period (FY99- FY2005), but the workload shifts to new roles and tasks; and (3), the future workforce (supply) can meet future demand if there are changes in Naval organization:

- Processes
- Workload Distribution
- Workforce Composition
- Competencies

#### 12. The reports contain "mitigation strategies." What are these?

The mitigation strategies focus on the gap defined between the projected (FY2005) IM/IT workload and the projected IM/IT workforce. Both Working Groups aligned their mitigation strategies with the five goals from the IM/IT Workforce Strategic Plan: manpower, recruiting, education and training, right personnel, right capabilities.

# 13. Are these results meant to help organizations — or even the DON — make personnel and resource (i.e., POM and budget) decisions?

Absolutely not! These studies make a strong case for the value of workforce planning. While the processes used and numbers were based on current available data, this type of

effort has never been done at the enterprise level for a mission or functional community. While the work is valid, it has not been validated. However, the insights gained from the subject matter experts provided a solid foundation at the enterprise level for the for the estimates of work, competencies and mitigation strategies.

They also demonstrate the power of developing an innovative, repeatable *process* that helps the DON pull together multiple aspects of IM/IT work — requirements, personnel, competencies — for analysis. The analysis that results from workforce planning then supports strategy development so the DON can focus specific efforts, like recruiting, training, and incentives, as well as the associated resources on the appropriate target audience.

# 14. What are the next steps on workforce planning?

The DON CIO is one of the first DON organizations to attempt workforce planning on a broad scale. There are many strategic and tactical actions that have to be implemented to institutionalize the process and make it part of DON culture. Among the first steps the DON CIO will be taking is communicating the approach it took and the results it achieved in this demonstration. It is important to share these products so other organizations can consider how they might implement this — and to build a critical mass of interest in the topic.

As you review the migration strategies in each document, it is clear that the efforts proposed by the working groups will not only benefit the IM/IT community, but will also affect civilians and military in other mission specialties. As the DON CIO moves forward on these strategies, it will be forging strategic alliances with other organizations to support its recommendations, as well as working closely with the organizations that can take specific actions to move its agenda forward.

#### 15. Is this something the DON CIO will continue to do?

As the DON moves forward with multiple initiatives that examine its workforce requirements, DON CIO plans to continue its efforts to understand IM/IT requirements and to shape the necessary IM/IT workforce. In its role as advocate for IM/IT manpower, as well as in response to its Clinger Cohen responsibilities, the DON CIO will review annually how to best conduct a workforce review. Right now, it appears that refining the workforce planning process and institutionalizing a repeatable process would provide the most insight and useful results for future workforce planning.